



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,773	12/17/2004	David N. Johnson	0275Y-000608NPB	4910

7590

03/15/2006

Christopher M Brock
Harness Dickey & Pierce
PO Box 828
Bloomfield Hills, MI 48303

EXAMINER

LANDRUM, EDWARD F

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/518,773	Applicant(s) JOHNSON ET AL.	
	Examiner Edward F. Landrum	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 8-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/13/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 3, 5, 6, 8, and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leshner et al (U.S Patent No. 4,604,933), hereinafter Leshner, in view of Mattes (U.S Patent No. 4,604,933), in further view of Kullmann et al '296 (U.S Patent No. 5,425,296), hereinafter Kullmann '296.

Leshner teaches (see Figures 1-6) an annular body (5), having a plurality of shoulders (8 and 9), with one insert (18 or 19) attached to each shoulder, each insert has two oppositely facing sides (22 or 32) with at least two cutting edges (23 and 24, or 38 and 37) with one surface on each insert (23 or 38) being disposed generally parallel to the rotational axis of the annular body (5) and extending over half of the width of the insert (see Abstract). The second cutting surface (24 or 37) terminates at a side one of the oppositely facing sides. The inserts are carbide (Col. 4, lines 66-68). Leshner further teaches the interface of adjacent inserts being closer to alternate sides of the annular body, and the back angle of the cutting inserts being about 10 degrees (Col. 5, lines 54-56). Furthermore, each insert has a leading face (21 or 31) and a bottom edge (see Figures 3 and 5)

Art Unit: 3724

Lesher teaches all of the elements of the current invention except the second cutting surface is offset between 10 and 30 degrees from the axis of rotation of the annular body and the first cutting surface terminating at one of the oppositely facing sides.

Mattes teaches (see Figure 3) a saw blade with two cutting edges designed to reduce the cutting pressure acting on each individual cutting tooth (Col. 3, lines 5-15). The first edge (10 or 10a) of each tooth terminates on an alternating side of the saw blade.

Kullmann '296 teaches (Col. 7, lines 21-23; also see Figures 3 and 4) inserts with a second cutting surface edge surfaces with an angle (9), that can be offset about 10 to 30 degrees from the axis of rotation of the annular body.

It would have been obvious to have modified Lesher to incorporate the teachings of Mattes and Kullmann '296 to create inserts for saw blades which helped reduce the overall pressure on each tooth, thereby increasing the overall life of each insert, by making each insert have only two cutting surfaces and further incorporating a specific angle for the second cutting surface for the purpose of avoiding the adverse influence of transverse forces which hinder a saw blade's ability to make a straight cut.

3. Claims 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Lesher, in further view of Morris et al (U.S Publication No. 2002/0194974).

Art Unit: 3724

The modified device of Lesher teaches all of the elements of the current invention as stated above except the materials and percentage of these materials found in the carbide inserts.

Morris teaches (Paragraph 17) forming carbide inserts with, 8.6% TiC, 12% TaNbc, and 9.5% Co for the purpose of promoting crater and flank wear resistances on carbide cutting tools.

It would have been obvious to have modified the modified device of Lesher to incorporate the teachings of Morris by providing carbide inserts with 8.6% TiC, 12% TaNbc, and 9.5% Co for the purpose of protecting the cemented metal carbide substrate from the corrosive atmosphere and from abrasion, thereby prolonging the life of the carbide inserts.

Response to Arguments

4. Applicant's arguments with respect to claims 2-6, and 8-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Henderson (U.S Patent No. 3,176,732), Henning et al (U.S Patent No. 4,867,026), Hayden et al (U.S Patent No. 4,784,033), Kubis (U.S Patent No. 5,054,354), Carlsen et al '547 (U.S Patent No. 5,884,547), Carlsen et al '573 (U.S Patent No. 6,427,573), Kurelek et al (U.S Publication No. 2002/0000150), and Drake (U.S Patent No. 2,659,397) teach inserts for saws. Weible et al (U.S Patent No 87,891), McLean

(U.S Patent No. 790,072), Ronan (U.S Patent No. 2,227,864), Harrison (U.S Patent No. 859,652), and Mason (U.S Patent No. 29,982) teach alternating edge saw blades.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.

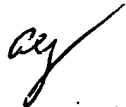
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EFL
3/8/2006




Allan N. Shoap
Supervisory Patent Examiner
Group 3700